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**U.S. Serial No.::** Not Yet Known
**U.S. Filing Date:** Herewith

was added because no abstract appeared in the PCT priority document. Appended hereto at page 4 is a marked-up version of the foregoing amendments in which additions to the text are shown with a gray background and deletions with .

The Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 06-1300 (Our Order No. A-71327/DJB/MAK).

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The paragraph beginning on page 2 at line 22 has been amended as follows:

> One proposal of a fuel cell electricity generation process in which a hydrocarbon fuel is converted to a fuel cell fuel stream including hydrogen in a steam pre-reformer is disclosed in EP-A-0435724. The temperature in the pre-reformer is described as 700 to 850°C with a resultant product-gas composition of 65-80 vol%$H_2$, ~~2-50~~ 5-20 vol% CO, and 5-25 vol% $CO_2$.

The paragraph beginning at page 4, line 16 has been amended as follows:

> By the present invention, a substantially wider source of fuel may be used for the fuel cell than just methane and/or hydrogen, including ethane and liquid higher hydrocarbons such as propane, butane, liquefied petroleum gas (LPG), gasoline (petrol), diesel, kerosene, fuel oil, jet oil, naphtha and mixtures of these, while a lower temperature of no greater than 500°C may be used for steam pre-reforming the higher hydrocarbon fuel source since there is no requirement to reform any methane in the steam pre-reformer. This permits a relatively small pre-reformer reactor to be used which, combined with the reduced maximum operating temperature of 500°C, enables a simplified and therefore cheaper pre-reformer system to be adopted. Such low temp steam pre-reforming also alleviates carbon deposition in the pre-reformer.

IN THE CLAIMS:

Claims 3, 4, 5, 6, 9, 11, 12, 13 and 14 have been amended as follows:

3. (Amended) A process according to claim ~~2~~ 1 in which the fuel stream includes no less than about 40% by volume methane~~, even more preferably no less than about 50% by volume methane, and most preferably no less than about 60% by volume methane,~~ measured on a wet basis.

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4. (Amended) A process according to ~~any one of~~ claims 1 ~~to 3~~ in which the temperature in the steam pre-reformer is no more than about 450°C~~, more preferably in a range of about 250°C to 450°C and most preferably in a range of about 300°C to 400°C~~.

5. (Amended) A process according to ~~any one of~~ claims 1 ~~to 4~~ in which the reaction of the fuel with steam in the methane generator is performed adiabatically.

6. (Amended) A process according to ~~any one of~~ claims 1 ~~to 5~~ in which the steam to carbon ratio in the methane generator is no more than 1.5~~, more preferably no more than 1.25 and most preferably no more than 1.0~~.

9. (Amended) A process according to ~~any one of~~ claims 1 ~~to 8~~ in which the fuel is a $C_{3+}$ hydrocarbon fuel.

11. (Amended) A process according to ~~any one of~~ claims 1 ~~to 10~~ in which the fuel is selected from the group consisting of ethane, propane, butane, LPG, gasoline (petrol), diesel, kerosene, fuel oil, jet oil, naphtha and mixtures of two or more of these.

12. (Amended) A process according to ~~any one of~~ claims 1 ~~to 11~~ in which the reaction at the anode of the fuel cell is performed at a temperature of at least 700°C.

13. (Amended) A process according to ~~any one of~~ claims 1 ~~to 12~~ in which waste heat from the fuel cell is recycled to the steam pre-reformer.

14. (Amended) A process according to ~~any one of~~ claims 1 ~~to 12~~ in which the reaction in the steam pre-reformer results in the conversion of at least 97.5% of the higher carbon ($C_{2+}$) hydrocarbon fuel.

New claims 16 through 21 have been added as follows:

16. A process according to claim 1 in which the fuel stream includes no less than about 50% by volume methane measured on a wet basis.

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17. A process according to claim 1 in which the fuel stream includes no less than about 60% by volume methane measured on a wet basis.

18. A process according to claim 1 in which the temperature in the steam pre-reformer is in a range of about 250°C to 450°C.

19. A process according to claim 1 in which the temperature in the steam pre-reformer is in a range of about 300°C to 400 °C.

20. A process according to claim 6 in which the steam to carbon ratio in the methane generator is no more than 1.25.

21. A process according to claim 6 in which the steam to carbon ratio in the methane generator is no more than 1.0.

IN THE ABSTRACT OF THE DISCLOSURE:

The following text has been added as an abstract of the disclosure:

ABSTRACT OF THE DISCLOSURE

A fuel cell produces electricity by reacting a higher carbon hydrocarbon fuel with steam in a steam pre-reformer, whose temperature does not exceed 500°C. A fuel stream is produced that includes hydrogen and not less than about 20% by volume methane, measured on a wet basis. The fuel stream and an oxidant are supplied to a high temperature fuel cell in which the methane is reformed. The fuel cell produces electricity by reacting the fuel stream at a fuel cell anode, and by reacting the oxidant at a fuel cell cathode.